

XP-002079252

1/1 - (C) WPI / DERWENT
AN - 90-264363 c35!
AP - JP890001351 890110
PR - JP890001351 890110
TI - Mfr. of porous graphite - by heating silicon carbide in
atmos. contg. chlorine
IW - MANUFACTURE POROUS GRAPHITE HEAT SILICON CARBIDE
ATMOSPHERE CONTAIN CHLORINE
PA - (SUME) SUMITOMO ELECTRIC IND CO
PN - JP2184511 A 900719 DW9035 000pp
ORD - 1990-07-19
IC - C01B31/02 ; C04B35/54
FS - CPI
DC - E36 L02
AB - J02184511 Rigid SiC is thermally treated in an
atmosphere contg. halogen gas to form porous graphite.
The thermal treatment temp. is over 1000 deg.C. The
halogen gas is Cl₂. The rigid SiC has green density
over 99%.
- USE/ADVANTAGE - The porous graphite has high specific
surface area and high purity. It is used as a fuel cell
electrode, catalyst support or as active carbon.
- In an example, SiC thin film (thickness = 100 microns)
is formed on a carbon substrate by thermal CVD method
using silane and methane as source gas. Then it is
heated at 600 deg.C and thermally treated at 1500 deg.C
for 10 hrs in N₂ gas contg. Cl₂ gas (Cl₂/N₂=0.1/1). The
obtained graphite has density of 0.95g/cm³ and specific
surface area of 900 m²/g. (4pp Dwg.No.0.4)